

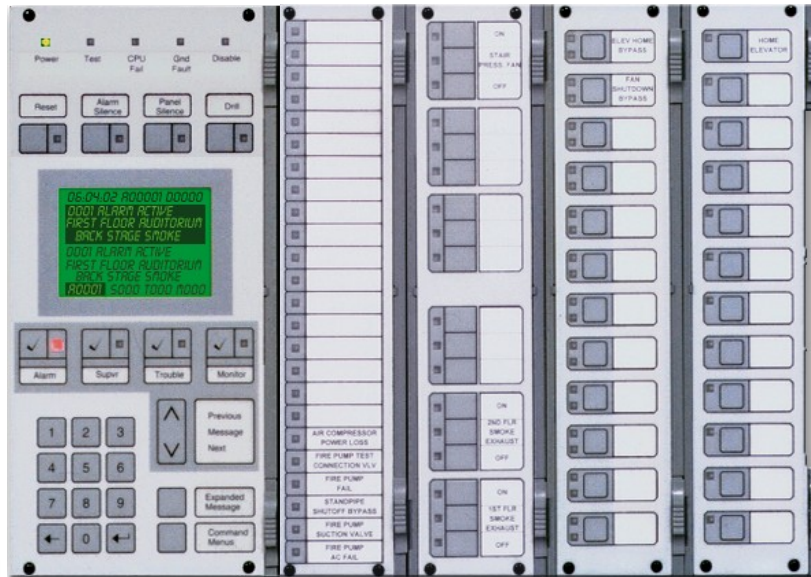


EST3
Operations



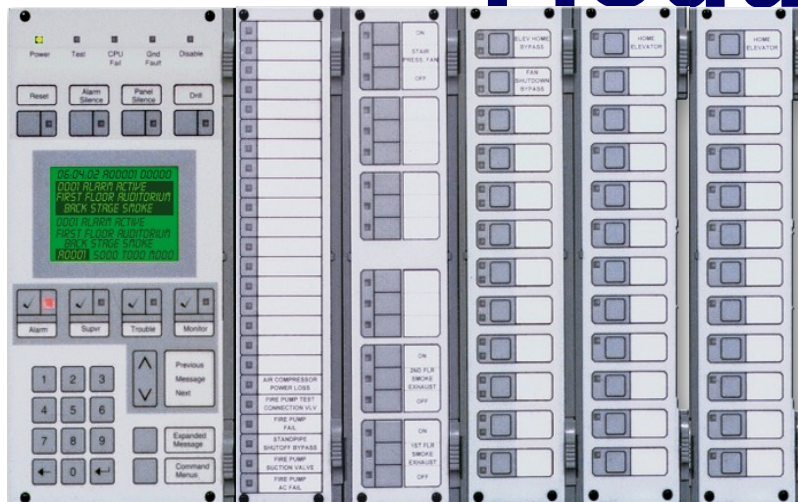
Life Safety Operations

User Control and Display

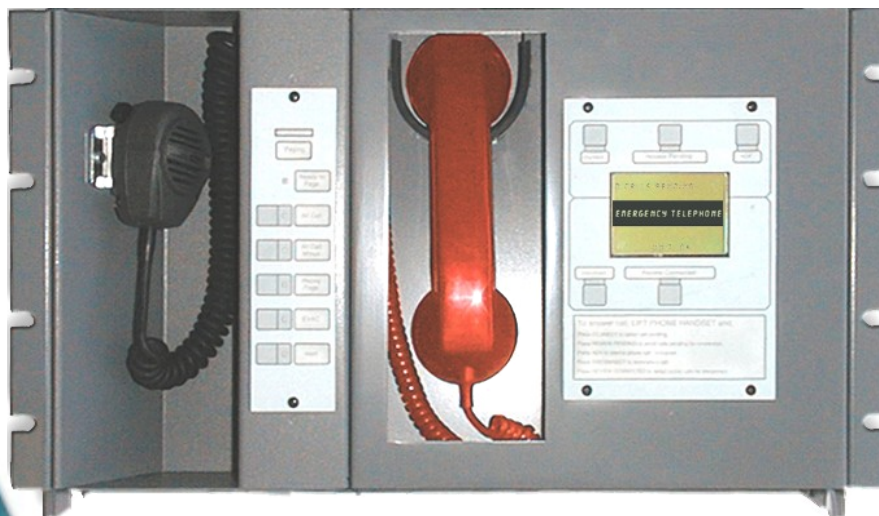


- Interface modules plug to LRMs
- Plastic construction, snap fit
- Membrane style /w tactile keys
- Hinged door allows easy service access to underlying LRM

Control and Display Modules



- Liquid crystal display module
- Four types of control display annunciator modules
- Emergency communication paging and fire phone controls



LCD Module Features



- Important information first and 'hands free'
- User choice - last event display
- User control
- Simple lights and switches
- High level zone info
- Emergency User Friendly






Liquid Crystal Display Module



- 5 general system status LEDs
- 4 common control switches
- 8 x 21 backlit graphical LCD
- Queues to sort events by type
- 4 queue LEDs and keys
- Previous and next keys
- Expanded message key
- Command menu key
- Numeric keypad

Main Display Status LEDs



				
Power	Test	CPU Fail	GND Fault	Disable

- 5 general system status LEDs

Main Display Common Controls



Reset



Alarm Silence



Panel Silence



Drill



- 4 common controls & switches

Common Control Expansion



- **Add a switch module to display**
 - **Total evacuation**
 - **Lamp test**
 - **City tie disable**



LCD Display Screens

```
12:12:12      04-25-96  
  
EDWARDS SYSTEMS  
TECHNOLOGY   EST3  
  
ALARM HISTORY      0000
```

scn1

- Title screen
- Event screen

```
12:19:12  A00002  D0000  
0001 FIRE ALARM  
PULL PAINT SHOP  
NORTH ENTRANCE  
0005 FIRE ALARM  
WATERFLOW PAINT SHOP  
  
A005  S001  F000  A000
```

scn2



Event Screen Windows

12:12:12 A0000002 D00000	}	SYSTEM STATUS WINDOW
0001 FIRE ALARM ACTIVE	}	FIRST OR CURRENT
LOCATION MESSAGE LINE1	}	EVENT WINDOW
LOCATION MESSAGE LINE2	}	
0002 FIRE ALARM ACTIVE	}	LAST EVENT WINDOW
LOCATION MESSAGE LINE1	}	
LOCATION MESSAGE LINE2	}	
A002 S000 T000 M000	}	TYPE STATUS WINDOW

scn5

LCD Alarm Display



- Reverse video
- Event number and type
- 42 character location message

Last Event Display



```

12:19:12  A000002  D00000
0001 FIRE ALARM
PULL PAINT SHOP
NORTH ENTRANCE
0005 FIRE ALARM
WATERFLOW PAINT SHOP

A005  S001  F000  M000
  
```

scn2

- Last event number and type (highest priority) /w 42 character location message
- Total number of events by type for all types

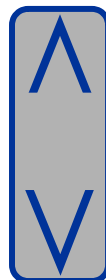
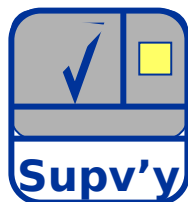
Event Queues and Types

```

12:19:12  A00006  00000
0001 SUPERVISORY
LOW PRESSURE RISER 1

0005 FIRE ALARM
WATERFLOW PAINT SHOP

A005 5001 T000 M000
  
```



Previous
Message
Next

- Queues sort events by type
- 4 queue LEDs & switches
- Queue LEDs flash for 'unseen' events
- Previous and next event selection

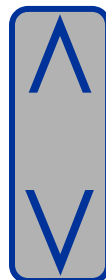
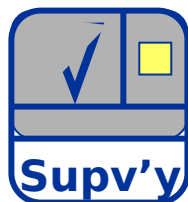
Queue Controls

```

12:19:12  A000006  00000
0001 SUPERVISORY
LOW PRESSURE RISER 1

0005 FIRE ALARM
WATERFLOW PAINT SHOP

A005 5001 T000 M000
  
```



- **User type selection**
 - Alarm
 - Supervisory
 - Trouble
 - Monitor
- **User message selection**
 - Previous
 - Next
- **Proprietary**

Expanded Messages

```
12:12:12 A00005 D0000  
0001 FIRE ALARM  
PULL STATION PPCCDDDD  
WEST STAIRWELL EXIT  
  
▼ TO VIEW MORE  
0005 FIRE ALARM  
A005 S000 T000 M000
```

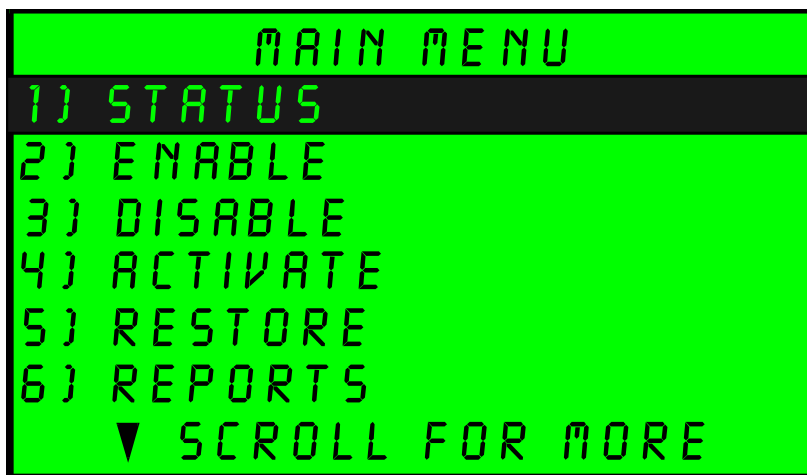
lcd3

- **Expanded message key**



**Expanded
Message**

Command Menu



lcd4

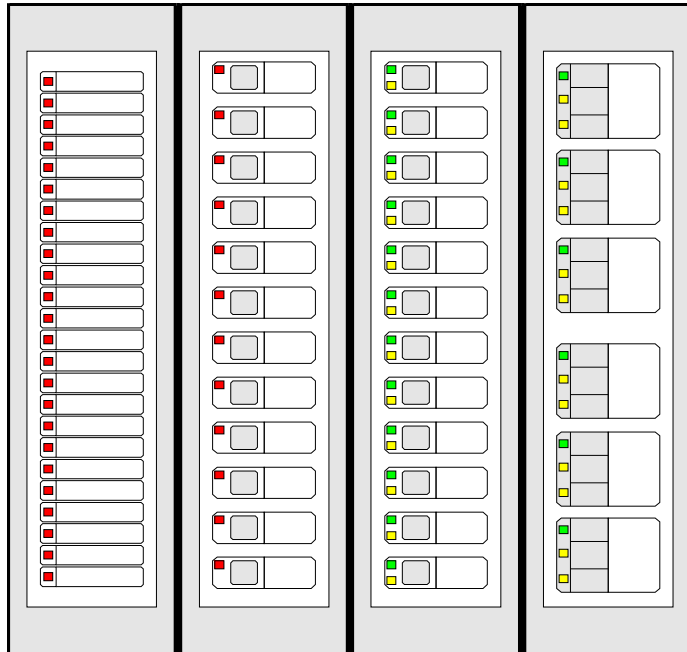


**Command
Menu**

- **Command Menu key**

- **Status**
- **Enable**
- **Disable**
- **Activate**
- **Restore**
- **Reports**
- **Program**
- **Test**

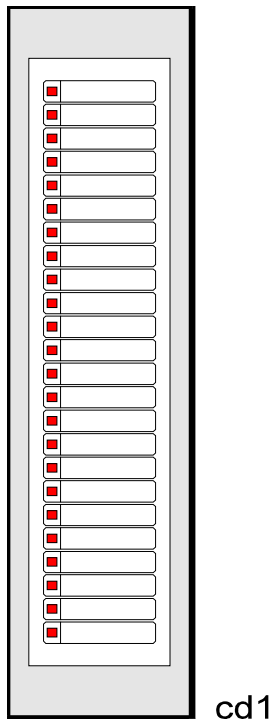
Control Display Modules



cd4

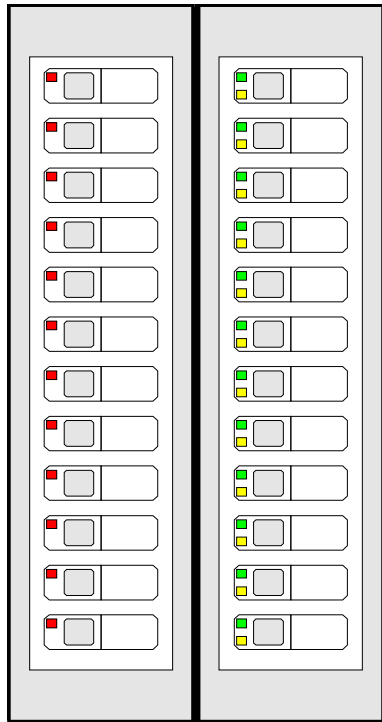
- Interfaced to system by processor on underlying LRM
- Selection independent of LRM function

Display Module



- **24 LED annunciator**
- **Red, yellow, or green LEDs**
- **Display**
 - alarm
 - supervisory
 - monitor
- **Flash fast, slow or steady, & off**

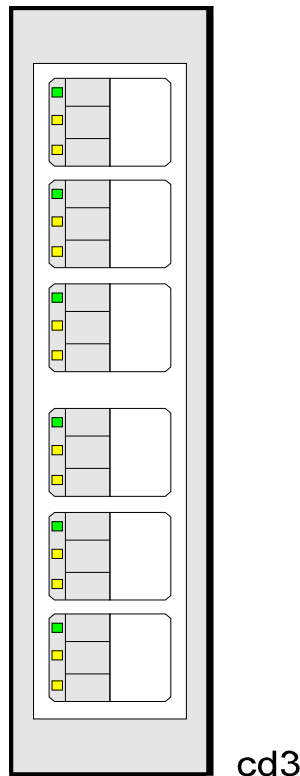
Control Display Modules



cd2

- 12 switches
- 12 or 24 LEDs
- Red, yellow, green LEDs, second yellow
- Control / display
 - Alarm
 - Supervisory
 - Page Select

Interlocked Control Display Module



- Six groups of 3 interlocked switches
- On-Auto-Off
- Open-Auto-Close
- Page-Status-Evac
- Page-Alert-Evac



Fire Alarm Functions

- **Verified Alarm Sequence**
- **Waterflow Alarm Sequence**
- **Alarm Silence, Manual & Automatic**
- **Alarm Silence Inhibit**
- **Sound General Alarm**
- **Automatic Evacuation Timer**
- **Auto Evacuation Cancel**



Fire Alarm Functions

- **Common Alarm, Supervisory, & Trouble Relays**
- **Auxiliary Power Output**
- **Notification Appliance Circuits**
 - **Audible, Visual, Auxiliary**
- **Sprinkler Supervisory**
- **Monitor**



Fire Alarm Functions

- **Programming**
 - **Common Event**
 - **Specific Event**
 - **Function Event**
- **Relay Responses**
 - **Delayed Relay Response**
 - **Sequenced Relay Response**
- **Relay Disable**



Fire Alarm Functions

- **Automatic & Manual Relay Operations**
 - **On Off**
 - **On Auto Off**
 - **One Relay Control**
 - **Two Relay Control**
- **Lamp Test**
- **City Tie Disable**



Logicals

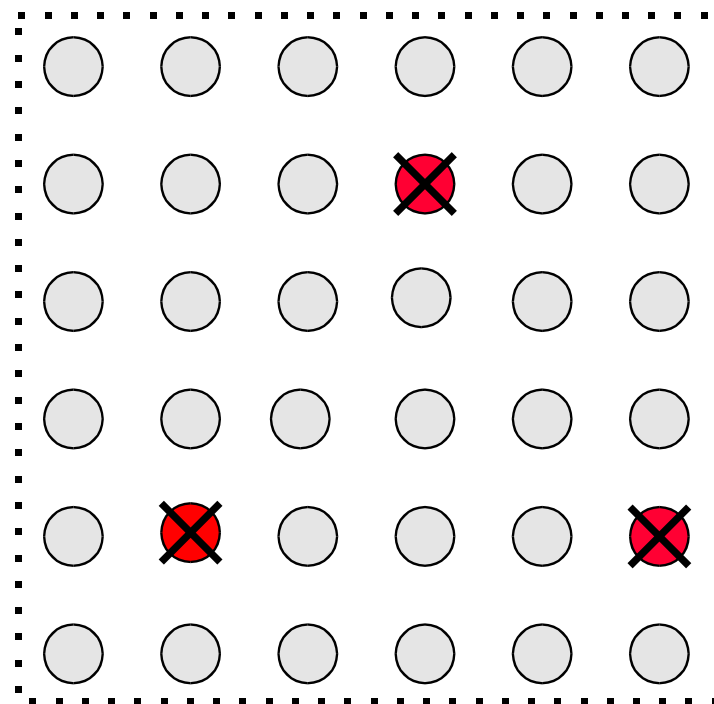
- **Logical Zone Group**
- **AND Groups**
- **Matrix Groups**
- **Test Groups**

AND Groups

- **Activation number**

○ Normal Detector

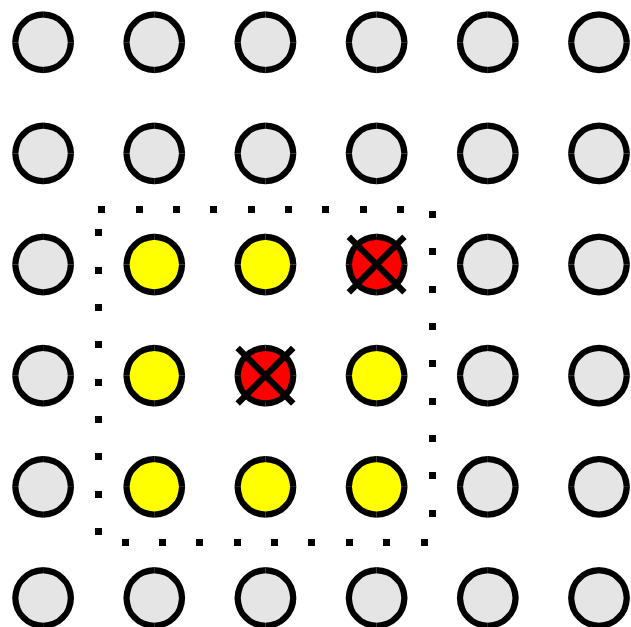
⊗ Active Detector



AND Group with 36 detectors

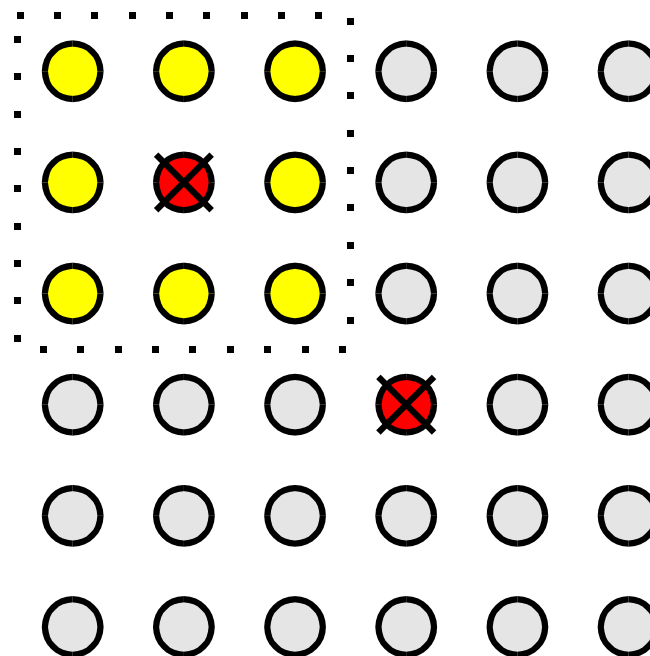
Matrix Group

○ Normal Detector



Matrix with a radius
of one is active

⊗ Active Detector



Matrix with a radius
of one is not active



Application Enhancements

- **Time Controls**
- **Check-in Group**
- **Emergency Alarm**
- **Guard Patrol**
- **Security**

Audio Source Unit Interface



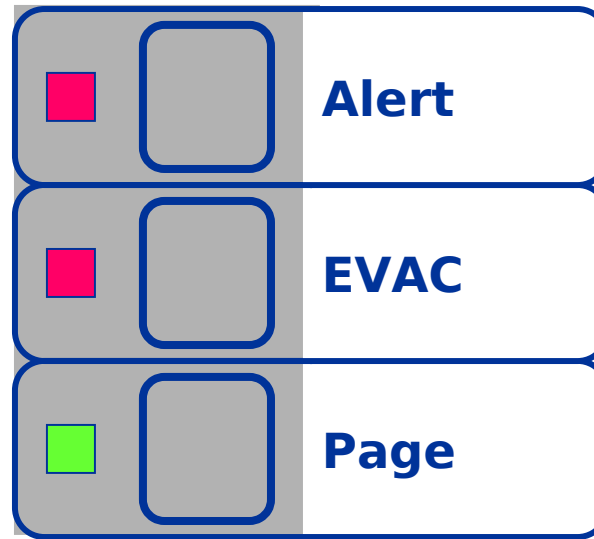
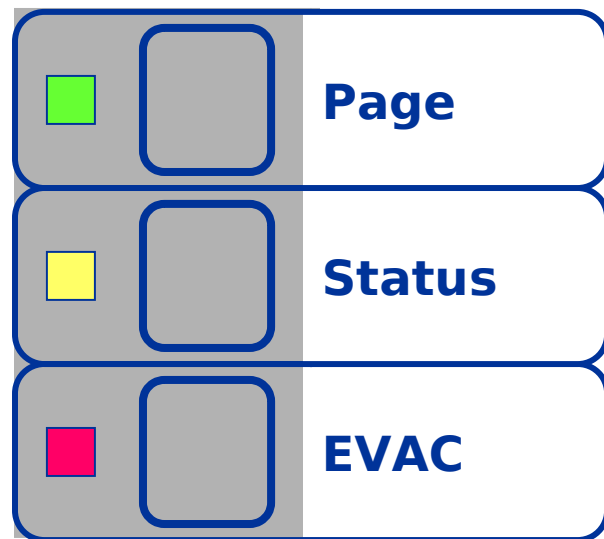
- **Simple to use**
- **Minimum operations**
- **Less chance of error**
- **Fast response**
- **Auto pre-announce**
- **Page de-activation timer**

Audio Source Unit Display



- **VU Display**
- **Ready to Page LED**
- **All Call**
- **Page to EVAC**
- **Page to Alert**
- **All Call Minus**
- **Page by Phone**

Zone Page Selection



ASU /w Fire Phone

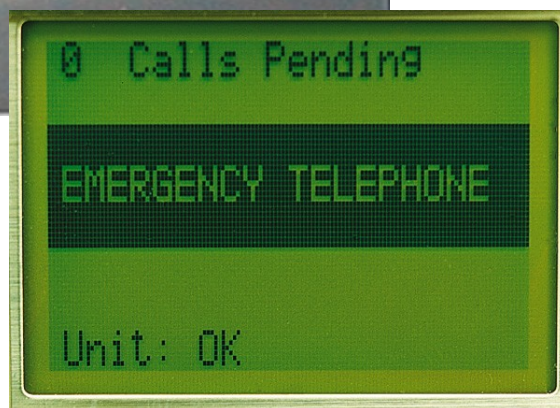


- **ASU-FT**
- **Complete chassis**

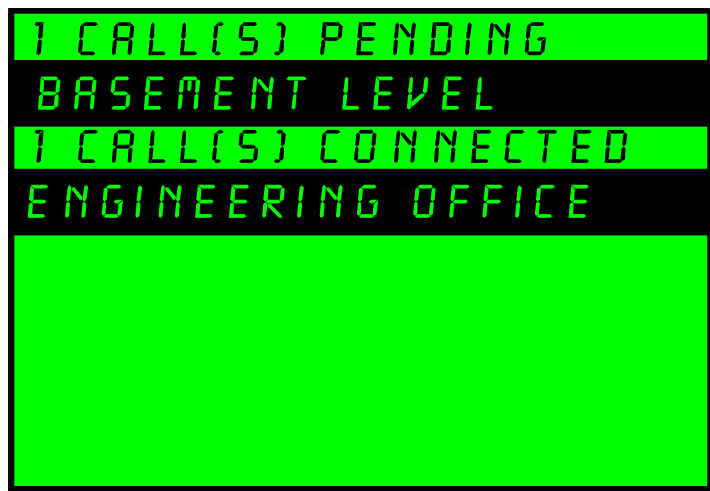
Fire Phone Control



- 8 x 20 Liquid Crystal Display
- language display of calls
- 20 character location message



Fire Phone LCD

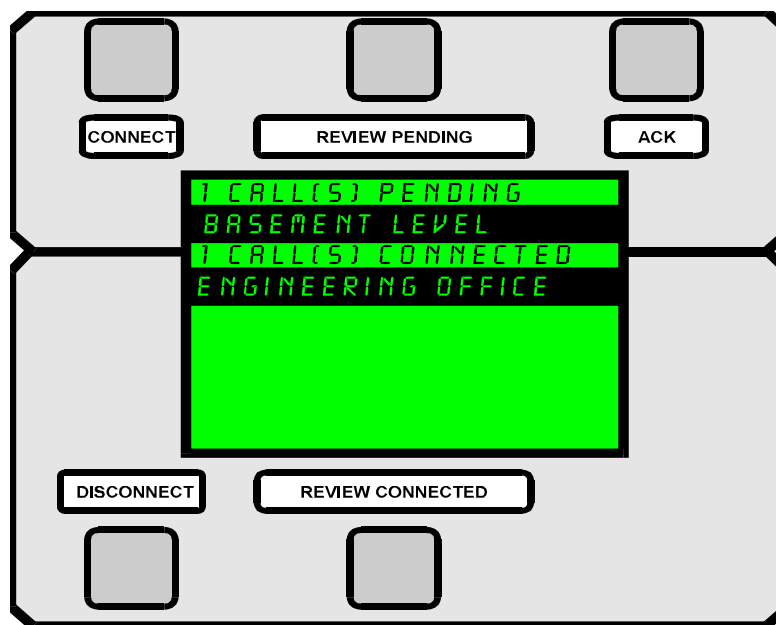
A screenshot of a Fire Phone LCD display. The screen is divided into four horizontal sections. The first section is black with green text that reads "1 CALL(S) PENDING". The second section is black with green text that reads "BASEMENT LEVEL". The third section is black with green text that reads "1 CALL(S) CONNECTED". The fourth section is black with green text that reads "ENGINEERING OFFICE". The bottom half of the screen is a solid green rectangle.

1 CALL(S) PENDING
BASEMENT LEVEL
1 CALL(S) CONNECTED
ENGINEERING OFFICE

telcd2

- Calls pending
- Pending list
- Calls connected
- Five lines individually list connected calls

Fire Phone Selection Controls



telcd1

- Connect
- Review Pending
- Ack
- Disconnect
- Review Connected



Life Safety Operations

Thank You!

